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Essay on

Pneumonia Biliosa.

by

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medical

Introduction.

It is a fact, that is corroborated by daily observation, that among all the diseases, which are incident to the human frame, there are few that are more formidable and intractable in their nature, more diversified in their character, or fatal in their termination than some of those diseases which, agreeably to Cullen's Nosology are placed in the order Phlegmasia.

However great the discrepance of opinion among men may be, relative to the doctrines of inflammation, one general rule is admitted by all, that when it is once established, it may be greatly influenced by peculiarity of circumstances, and that the attendant danger is lessened or increased in proportion to the extent or location of inflammation.

Reasoning then from the above axiom may we not safely infer that Pneumonia Biliosa (which I conceive to be inflammation of the Lungs, the Pleura, and secondarily of the Liver) is a disease that is fraught with danger, and that will require the utmost promptness in its treatment, and be sufficient apology for the physician to have re-

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course to means, which under different circumstances would be harsh and contraindicated, in order to arrest it in its ruinous career, and to restore the system to its wonted integrity.

Having lately had an opportunity of treating some cases of this disease, and desiring to become a candidate for graduation the ensuing Spring, I deemed it (Pneumonia) an appropriate subject for my inaugural essay, and hope that the mode of treatment which I adapted may meet the approbation of the medical faculty.

Aware of the diversity of symptoms, by which this disease is ushered in under different circumstances, it is not my intention to give an elaborate description of it, but will restrict myself to it, as it ordinarily prevails. Neither do I intend to mention all the different ways it may terminate, but merely to notice the one, which I consider the most common.

With a view of introducing some order into this essay, that will enable me to treat the subject with more perspicuity, I shall divide the disease into three stages, the incipient or forming, the confirmed or inflammatory, and the depressed or low stage.

I shall first mention the causes and symptoms, then I will briefly notice the Pathology, and conclude with treatment which I think most appropriate to each stage.

Causes.

The causes of Pneumonia are very numerous and diversified in their nature, and have consequently given rise to many speculations, and opinions relative to the most prolific source of this disease

Notwithstanding the difference of opinion that for a long time existed, it is now pretty generally admitted that cold, whether directly applied to the surface of the lungs, or indirectly through the medium of sympathy is the most fruitful cause of Pneumonia.

There are however some other causes, such as long continued singing or speaking, the inhalation of poisonous gases, adulterated air &c, and in short anything that will have a tendency to strain or otherwise injure the Pneumonic organs. These that I have enumerated are the principal causes of Pneumonia but as it frequently prevails as an epidemic

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and as, agreeably to an established law of nature, no effect can ever be produced without a cause, it necessarily follows, that there must be some latent cause, which, by acting on the system generally, creates a more than ordinary liabilility to pneumonic inflammation. Taking all the circumstances relative to this disease into consideration I am constrained to agree with a late writer, who asserts, that this peculiar condition of the lungs is occasioned "by some past or present distemperature of the atmosphere;" which makes a morbid impression on those organs, and produces a tendency to inflammation. This fact I trust is sufficiently corroborated by the circumstance, that an individual may be exposed to all the causes above enumerated with perfect impunity when this peculiar condition of the atmosphere does not exist, whereas, when the converse obtains the least exposure may produce pneumonia, accompanied by a train of symptoms truly alarming.

severe pain in the right hypocondriac region

Symptoms.

The incipient stage of Pneumonia is generally recognized by a slight chill, weak pulse, great pain in the limbs and head, a pain of a peculiar piercing nature in different places in the breast, the patient ordinarily breathes very hard, is troubled with more or less cough, in some instances he cannot expectorate, though sometimes the cough is attended by an expectoration of viscid, opaque mucus; the cheeks become flushed, the headache more violent, and if the disease be not arrested it will terminate in confirmed Pneumonia.

The symptoms which characterize the second stage are more violent. The pain in the breast has now become stationary, the cough considerably aggravated, the pulse is full, frequent, and tense, there is great restlessness and anxiety, high fever, the carotid and temporal arteries pulsate violently; respiration is hurried and painful, particularly when the patient endeavours to take a full inspiration, there is great irregularity in the action of the intercostal muscles, the cough is dry, or if there is any expectoration it is a thin mucus tinged with

there are bilious discharges from the bowels,

blood, the tongue is dry and polished, the urine is scanty and deposits a lateritious sediment, the patient is unable to lie on affected side &c.

The last stage somewhat resembles Typhus fever. The skin is cold and shrivelled, the tongue dry and of a dark livid colour, the pulse small and compressible, the stomach almost devoid of sensibility, the bowels discharge a dark watery fluid, nervous irritability is very much impaired, the cutaneous veins are almost empty, the respiration is short irregular attended by a peculiar rattling noise in the throat, the patient becomes delirious, his countenance is wild and cadaverous, the pulse is now scarcely perceptible, the strength is almost exhausted, and death soon terminates the scene unless relief be afforded.

Pathology.

Health may be said to consist in an equal excitement being kept up in the nervous system, in the maintenance of the equilibrium of the circulation, and in the ability

of the different organs of the body faithfully to perform their functions. When there is any cause that produces more than ordinary excitement in any particular organ there is an unusual afflux of blood to the part its functions are greatly impaired, that nice consent of parts which exists in health is destroyed, and disease follows as the consequence. Thus in Pneumonia, in consequence of some of the abovementioned causes, which have a stimulating effect, an impression is made on the nervous system generally, and from thence transmitted to the Lungs and Pleura, which gives rise to an inordinate determination of blood to the parts, the circulation there becomes diminished, the lungs become engorged, congestion follows, and their vital energy is considerably impaired.

After some time has elapsed nature, with a view of re-establishing the crippled functions of the lungs, and of restoring the equilibrium of the circulation, to its primeval integrity, brings on a reaction more or less violent, but her means are rarely sufficiently active to accomplish

her purpose, she fails in the attempt, and inflammation is the consequence. This inflammation spreads from the Pleura, to the Diaphragm and from the diaphragm to the Liver, and then all the symptoms combined constitute the disease under consideration.

The violent headache which is an invariable attendant on Pneumonia may probably be accounted for, by the direct nervous communication, which exists between the lungs and brain. The par vagum transmits a morbid impression to the brain, this nervous excitabilitey produces an inordinate afflux of blood thither, which occasions congestion, and will cause an Apoplexy or inflammation, if not timely arrested.

The irregular action of the intercostal muscles, and the hurried and broken respiration may arise from the circumstance of the pleura costalis being inflamed, the patient breathes almost entirely with the diaphragm, and when an effort is made to inspire, the chest is more or less expanded, the intercostal muscles are called into

action, they contract, great pain is occasioned by this contraction, and the patient in order to lessen it, makes a hasty and violent effort at expiration, which effort produces the peculiar phenomena alluded to.

Treatment.

Concerning the treatment of Pneumonia I shall endeavour to be as brief as possible. Pneumonia Biliosa if it be attacked in its incipient stage, may be entirely eradicated from the system and healthy action be again restored without a material injury being sustained by any of the organs involved. In order to effect so desirable an event, the physician should as soon as circumstances will permit, endeavour to break down the existing morbid impression which is made on the lungs, and to tranquilize the system, by detracting a portion of blood from the patient, and then to bring on perspiration, with a view of creating a revulsive action, which will have a tendency to divert the cur-

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rent of blood from the thoracic and abdominal viscera to the surface of the body, and restore the equilibrium of the circulation. In order to produce perspiration, the patient should be put to bed, be warmly covered, and bottles filled with hot water placed to his extremities, or if these should not be convenient, heated bricks wrapped up in cloths, that have been soaked in vinegar, or water.

In conjuntion to this he should take large draughts of warm and diluent drinks, such as Balm or Sage teas or a warm infusion of Eupatorium Perfoliatum. Should however all these remedies fail: in order to accomplish our purpose we should resort to more energetic means. We should first evacuate the alimentary canal by means of some cathartic medicine: after the purge has operated freely, the patient should be placed in a warm bath for some time, and when he is taken out, he should be put to bed and warmly covered with blankets. Notwithstanding all our endeavours to check the disease, it sometimes proves very intractable, and will run

its course in despite of every effort to arrest it, and assumes the form of confirmed Pneumonia.

The second stage of this disease will exact a treatment decidedly more prompt and energetic than that above detailed. When called to a patient labouring under Pneumonia our first step should be to draw blood largely. The quantity to be drawn will depend entirely upon the violence of the disease, and the constitution of the patient: Should the patient be of a robust and plethoric habit he would probably be able to bear the loss of twenty or thirty ounces of blood, or even a sufficient quantity to produce syncope. Whereas should the converse obtain, and the patient be of a weak debilitated habit, the loss of so much blood would be inadmissible: therefore the physician should bleed according to existing circumstances, carefully observing the effect produced. Bloodletting is generally admissible in this disease, and we can scarcely err when we bleed, but though this may obtain as a general rule, there are some exceptions to it. Were we to bleed a pa-

tient who had previous to his attack been very much reduced by some other disease, he would probably sink rapidly under the operation, reaction would not be sufficiently energetic to arouse him, and he might notwithstanding all our endeavours to produce reaction die before we would be able to accomplish it. The effects that may be expected from venesection, are, a cessation of pain, relief of respiration, the pulse becomes soft and less frequent, there is a slight perspiration produced over the whole body, and in short there is a partial remission of all the alarming symptoms. These favourable effects, however are of short duration, and only have a tendency to give a false peace to the patient, and to mislead the physician should he not be aware of their transitory nature. In a short time all the alarming symptoms will recur again with as much or probably more violence than before, and should the physician be ignorant of the circumstance, that patients affected with inflammatory diseases can sustain the loss of

very great quantities of blood it would be a source of great embarrassment to him. The only alternative therefore that we have in case there should be a recurrence of alarming symptoms, is to resort to the lancet again, the patient would probably be able to lose as much blood as at the first bleeding, and generally the same favourable effects would follow.

When we have derived all the benefit that we can rationally expect from bloodletting we should have recourse to some remedy to evacuate the alimentary canal. The one which I found the most effectual was the following Protochloride of mercury grs xx

Ipecacuanha — grs xv to be given at once suspended in common syrup. If this did not operate freely on the bowels I generally gave sulphate of Magnesia ℥ss which commonly produced the desired effect. After these remedies had operated freely, the patient was much relieved the system was for a while tranquilized, and the patient was able to expectorate a little. In order to promote expectoration, and produce a slight per-

spiration we should administer some ~~rem~~ medicine that would produce this effect. The following formula I have found more beneficial than any I ever administered.

Spts of Nitre ℥i
Gum Arabic ℥iß
Emetic Tartar grs v
Water - - - ℥iij.

Of this mixture I gave a tablespoonful every two or three hours according to circumstances, if it produced emesis I reduced the quantity, or gave it at longer intervals, and the patient was ordered to drink warm flaxseed tea or a warm infusion of snake root as his common drink. In conjunction with the above remedies I administered every morning and evening five or six grain of Calomel, or if this purged too much I diminished the quantity. my reason for administering the calomel in such ~~small~~ repeated doses was, to endeavour to make an impression on the system, that would supplant the disease, and establish in its stead a more healthy action. When the system is sufficiently reduced by the remedies above

mentioned, and the patient complained of pain in the breast I applied a large blistering plaister over the part where he experienced the most pain. If the patient was refractory and would not allow the application of a blister, I substituted warm applications, such as bran and salt which had been warmed in a pan or some other vessel; I put them in a small bag, and laid them on as hot as the patient could bear.

As I have above detailed, such was the mode of cure that I generally resorted to, to arrest the acute form of Pneumonia, and I am happy to say, that I rarely failed.

If however it should not be in our power to arrest the the disease, or we should not have been consulted before it has degenerated into the low or depressed stage, a new train of symptoms will supervene that will demand a treatment directly the reverse of that which I have given above. We should immediately lay aside all remedies of a depleting nature, and have recourse to a different class of medicine; I allude to such as would stimulate the system and have a tendency to arouse the patient from this low and depressed condition. I have used many

of the stimulating articles with this intention, such as Camphor, Brandy, Carbonate of Ammonia &c and the remedy which I found most efficacious was the Carbonate of Ammonia. The manner in which I administered it was as follows

Carbonate of Ammonia ℥j
Pulverized Gum Arabic ℥iß
Emetic Tartar — grs vi
Water — ℥iv

Of this mixture I gave a large tablespoonfull every two or three hours, according to circumstances. I also ordered that the patient should have wine whey to drink whenever he became thirsty. These remedies I generally continued until the patients system began to react. I then discontinued them and resorted to tonic remedies. It may be proper to remark, that the Tartar Emetic acted very beneficially in combination with the Carb Ammonia; it produced, in almost every instance, a copious expectoration of thick yellowish mucus, and the surface of the body became soft and moist. We might be induced to suppose that

Tartar Emetic in such doses, would produce nausea or even vomiting, but this was not the case in those instances in which I used it. This circumstance probably arose from the want of irritability of the stomach, which is almost an invariable attendant of this stage of the disease.